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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,587	03/29/2001	Darin Wayne Higgins	108344.00020	3453
22852	7590	04/10/2006		EXAMINER
				WANG, JIN CHENG
			ART UNIT	PAPER NUMBER
			2628	

DATE MAILED: 04/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/821,587	HIGGINS ET AL.	
	Examiner	Art Unit	
	Jin-Cheng Wang	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 15 February 2006.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-4, 7 and 9-21 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-4, 7 and 9-21 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/15/2006</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Response to Amendments

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/15/2006 has been entered. Claims 5-6, 8 have been canceled. Claims 1-4, 7, and 9-21 are pending in the present application.

Response to Arguments

Applicant's arguments filed February 15, 2006 have been fully considered but are moot in view of the new ground of rejection set forth in the present Office Action. As addressed below, Veatch U.S. Patent No. 5,414,462 teaches the claim limitations set forth in the claim 1.

Veatch teaches a method for simultaneously annotating a plurality of maps using a data processing system, comprising:

Displaying a first map in one area of a display (e.g., the cited reference teaches a digital map or a raster map being displayed; see Fig. 5; See Fig. 3 for the image base map; column 4, lines 35);

Displaying a second map in a second area of the display (e.g., *the cited reference teaches a vector map being displayed in a second area of the display; see Fig. 6 and column 3, lines 30-42; column 4, lines 57-66*; e.g., *the cited reference teaches aligning corresponding areas of the*

legal description map-vector map and the image base map-raster map wherein the second map underlying on the first map constitutes the second area of the display; column 3, lines 43-58; column 5, lines 1-23),

wherein the first map and the second map depict at least a portion of an identical geographic region (e.g., *the cited reference teaches aligning corresponding areas of the legal description map-vector map and the image base map-raster map; column 3, lines 43-58; column 5, lines 1-23*);

Making a first annotation on a first region of the first map expressed by first map coordinates (e.g., *the cited reference teaches using GPS receiver that uses satellite transmitted radio signals to derive the latitude and longitude coordinates (annotations) of the various survey points; see column 3, lines 45-55. Moreover, a plurality of marks 12 and lots 14 are shown in Fig. 5*);

Converting the first map coordinates to corresponding geographic coordinates using a georeferencing function of the first map (e.g., *the cited reference teaches using GPS Aerial Survey Camera System to determine relative ground positions at known reference points within a photographic image-first map; see column 3, lines 15-30; and using GPS receiver to derive the latitude and longitude coordinates of the various survey points; column 3, lines 45-55. The cited reference also teaches using GIS's georeferencing function or the computer-aided drafting functions; column 3, line 32, to map the ground reference points to the position and elevation data*);

Converting the geographic coordinates to corresponding second map coordinates using a georeferencing function of the second map (e.g., the cited reference teaches using the latitude

and longitude coordinates of the various survey points to overlay and orient the legal description map for the parcel of interest over a corresponding portion of the image base map; the conversion are performed by the computer-aided drafting functions provided by GIS to create the legal description map based on legal description data including descriptions of all the invisible attributes of the parcel such as boundaries, easements, floodplain, etc., obtained from plats and/or deeds available from sources such as public and land records; column 3, lines 30-42);

Determining a geographic region on the second map corresponding to the first region using the second map coordinates (e.g., the cited reference determines the surveyed lot on the legal description map over a corresponding portion of the image base map and uses the GPS receiver to determine the latitude and longitude coordinates of the survey points 16 to overlay and locate the legal description map for the surveyed lot over a corresponding portion of the image base map, creating a comprehensive survey map for the surveyed lot; **column 5, lines 1-25**); and

Electronically and automatically adding a second annotation to the second map at the determined geographic region wherein the first annotation is made on the first map (*The cited references teaches correlating the survey point position data to data contained in the legal description map relating to boundary points and/or lines to overlay the appropriate section of the recalled image base map wherein a plurality of annotations are shown in Figs. 2 and 6*).

Veatch does not explicitly teach the claim limitation of displaying a second map in a second area of the display at the time when an annotation is being made.

Moore teaches “displaying a second map in a second area of the display” (*Moore teaches among other things the “Auto-Sync” allowing multiple users to view changes of the*

geographically referencing object on different displays; column 11, lines 34-39 and column 12; or using an Internet browser software to view the map images through selection of the types of map images including map requests by the back and forward operations and map displays by a variety of different windows; column 10, lines 56-67; and zooming/scrolling of a map image to view different regions of a map image; column 13).

It would have been obvious to one of ordinary skill in the art to have displayed separately the two maps into Veatch's method for manipulating a map because Veatch teaches overlaying and aligning the two maps wherein overlaying the two maps requires displaying one map in the upper layer (first area) of the display window and displaying the second map in the lower layer (second area) of the display window. Moreover, Veatch teaches the first map was displayed as a map of a larger region before being aligned with the second map in the corresponding smaller regions of the two maps. see Fig. 6 and column 3, lines 30-42; column 4, lines 57-66; e.g., the cited reference teaches aligning corresponding areas of the legal description map-vector map and the image base map-raster map wherein the second map underlying on the first map constitutes the second area of the display; column 3, lines 43-58; **column 5, lines 1-23.**

Moore also teaches receiving or generating map data in pixel format (raster map) for a geographic region identified in a user request (column 7, lines 60-65) and displaying addresses of locations or landmarks on the map and the status changes from other users such as displaying an address location on the maps of all the user terminal equipment when one user geographically references an address; column 8, lines 53-65. Moore teaches the user of the user terminal equipment to change map displays, zoom-in and out and track a particular vehicle without requiring new or updated vehicle location data from the datacenter (column 9). Moore discloses

displaying static maps such as the raster scan maps as well as dynamic maps including a list of different maps such as radar images, vector maps and image maps (column 9) and the geo-referencing the geo-graphic coordinate system and the pixel coordinate system (column 10). Whenever a new map is selected, the variables used to establish the relative distances for the respective coordinate system of the map are reset along with the width and height of the map image and the positions of the objects relative to the new map. Whenever new vehicle position information is received, the new vehicle position is updated on the map display through the geographic coordinate system to pixel conversion process (column 10) and maps can be selected in a menu to select a map including a vector map and a raster digital map (column 10). Moore discloses geo-code operation identifying the street address and city/town designation of a particular vehicle location, building, or other landmark which has been geographically referenced on a particular map (column 12) and when the specific latitude and longitude of a requested geographically referenced object is calculated, the information is used by the requesting user terminal equipment and an arrow may be provided as part of the icon to point to the specific location of the geographically referenced object (column 12) and the dispatcher at one user terminal equipment can drag and drop any vehicle under their control to direct the selected vehicle to a geographically referenced address (column 13).

One having the ordinary skill in the art would have been motivated to do this because it would have advantageously provided display means for displaying two maps separately in two different areas of the same display so that the corresponding areas between the raster map and the vector map can be clearly identified on separate displays and the corresponding areas of the

raster map and the vector map can be annotated with different symbols (Veatch Figs. 2 and 6; column 3, lines 30-42).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 7 and 9-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Veatch U.S. Patent No. 5,414,462 (hereinafter Veatch) and Moore et al. U.S. Patent No. 6,377,210 (hereinafter Moore).

3. Claim 1:

Veatch teaches a method for simultaneously annotating a plurality of maps using a data processing system, comprising:

Displaying a first map in one area of a display (e.g., the cited reference teaches a digital map or a raster map being displayed in an area of the display; see Fig. 5; See Fig. 3 for the image base map; column 4, lines 35);

Displaying a second map in a second area of the display (e.g., the cited reference teaches a vector map being displayed in an area of the display; see Fig. 6 and column 3, lines 30-42; column 4, lines 57-66),

wherein the first map and the second map depict at least a portion of an identical geographic region (e.g., *the cited reference teaches aligning corresponding areas of the legal description map-vector map and the image base map-raster map; column 3, lines 43-58; column 5, lines 1-23*);

Making a first annotation on a first region of the first map expressed by first map coordinates (e.g., *the cited reference teaches using GPS receiver that uses satellite transmitted radio signals to derive the latitude and longitude coordinates (annotations) of the various survey points; see column 3, lines 45-55. Moreover, a plurality of marks 12 and lots 14 are shown in Fig. 5*);

Converting the first map coordinates to corresponding geographic coordinates using a georeferencing function of the first map (e.g., *the cited reference teaches using GPS Aerial Survey Camera System to determine relative ground positions at known reference points within a photographic image-first map; see column 3, lines 15-30; and using GPS receiver to derive the latitude and longitude coordinates of the various survey points; column 3, lines 45-55. The cited reference also teaches using GIS's georeferencing function or the computer-aided drafting functions; column 3, line 32, to map the ground reference points to the position and elevation data*);

Converting the geographic coordinates to corresponding second map coordinates using a georeferencing function of the second map (e.g., *the cited reference teaches using the latitude and longitude coordinates of the various survey points to overlay and orient the legal description map for the parcel of interest over a corresponding portion of the image base map; the conversion are performed by the computer-aided drafting functions provided by GIS to create*

the legal description map based on legal description data including descriptions of all the invisible attributes of the parcel such as boundaries, easements, floodplain, etc., obtained from plats and/or deeds available from sources such as public and land records; column 3, lines 30-42);

Determining a geographic region on the second map corresponding to the first region using the second map coordinates (e.g., the cited reference determines the surveyed lot on the legal description map over a corresponding portion of the image base map and uses the GPS receiver to determine the latitude and longitude coordinates of the survey points 16 to overlay and locate the legal description map for the surveyed lot over a corresponding portion of the image base map, creating a comprehensive survey map for the surveyed lot; column 5, lines 1-25); and

Electronically and automatically adding a second annotation to the second map at the determined geographic region wherein the first annotation is made on the first map (The cited references teaches correlating the survey point position data to data contained in the legal description map relating to boundary points and/or lines to overlay the appropriate section of the recalled image base map wherein a plurality of annotations are shown in Figs. 2 and 6).

Veatch does not explicitly teach the claim limitation of displaying a second map in a second area of the display.

Moore teaches “displaying a second map in a second area of the display” (Moore teaches among other things the “Auto-Sync” allowing multiple users to view changes of the geographically referencing object on different displays; column 11, lines 34-39 and column 12; or using an Internet browser software to view the map images through selection of the types of

map images including map requests by the back and forward operations and map displays by a variety of different windows; column 10, lines 56-67; and zooming/scrolling of a map image to view different regions of a map image; column 13).

It would have been obvious to one of ordinary skill in the art to have displayed separately the two maps into Veatch's method for manipulating a map because Veatch teaches overlaying and aligning the two maps wherein overlaying the two maps requires displaying one map in the upper layer (first area) of the display window and displaying the second map in the lower layer (second area) of the display window. Moreover, Veatch teaches the first map was displayed as a map of a larger region before being aligned with the second map in the corresponding smaller regions of the two maps. see Fig. 6 and column 3, lines 30-42; column 4, lines 57-66; e.g., the cited reference teaches aligning corresponding areas of the legal description map-vector map and the image base map-raster map wherein the second map underlying on the first map constitutes the second area of the display; column 3, lines 43-58; **column 5, lines 1-23.**

Moore also teaches receiving or generating map data in pixel format (raster map) for a geographic region identified in a user request (column 7, lines 60-65) and displaying addresses of locations or landmarks on the map and the status changes from other users such as displaying an address location on the maps of all the user terminal equipment when one user geographically references an address; column 8, lines 53-65. Moore teaches the user of the user terminal equipment to change map displays, zoom-in and out and track a particular vehicle without requiring new or updated vehicle location data from the datacenter (column 9). Moore discloses displaying static maps such as the raster scan maps as well as dynamic maps including a list of different maps such as radar images, vector maps and image maps (column 9) and the geo-

referencing the geo-graphic coordinate system and the pixel coordinate system (column 10).

Whenever a new map is selected, the variables used to establish the relative distances for the respective coordinate system of the map are reset along with the width and height of the map image and the positions of the objects relative to the new map. Whenever new vehicle position information is received, the new vehicle position is updated on the map display through the geographic coordinate system to pixel conversion process (column 10) and maps can be selected in a menu to select a map including a vector map and a raster digital map (column 10). Moore discloses geo-code operation identifying the street address and city/town designation of a particular vehicle location, building, or other landmark which has been geographically referenced on a particular map (column 12) and when the specific latitude and longitude of a requested geographically referenced object is calculated, the information is used by the requesting user terminal equipment and an arrow may be provided as part of the icon to point to the specific location of the geographically referenced object (column 12) and the dispatcher at one user terminal equipment can drag and drop any vehicle under their control to direct the selected vehicle to a geographically referenced address (column 13).

One having the ordinary skill in the art would have been motivated to do this because it would have advantageously provided display means for displaying two maps separately in two different areas of the same display so that the corresponding areas between the raster map and the vector map can be clearly identified on separate displays and the corresponding areas of the raster map and the vector map can be annotated with different symbols (Veatch Figs. 2 and 6; column 3, lines 30-42).

Claim 2:

The claim 2 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of “selecting a second map.” However, the Veatch reference teaches selecting a second map in which parcels for the geographic survey region are identified within the territory depicted by the aligned raster and vector maps (Figs. 2 and 6; column 3, lines 30-42).

Claim 3:

The claim 3 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of “selecting a first map.” However, Veatch further discloses the claimed limitation of selecting a first map (Fig. 5; the cited reference selecting the geographic survey region; column 5, lines 1-23).

Claim 4:

The claim 4 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of “receiving a display of a second map that is automatically associated with the first map.” However, the Veatch reference teaches receiving a display of a second map that is automatically associated with the first map (Figs. 2 and 6 and column 5, lines 1-23)

Claim 7:

The claim 7 encompasses the same scope of invention as that of claim 1 except additional claimed limitation that the first map is a vector map and the second map is a digital raster map. However, the Veatch reference teaches that the first map is a vector map and the second map is a

digital raster map (correlating the legal description map-vector map with the image base map-raster map; column 5, lines 1-23).

Claim 9:

The claim 9 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of the user manipulating the first map. However, Veatch further discloses the claimed limitation of the user manipulating the first map (column 5, lines 5-10 wherein the operator enters the survey points into the GIS 110).

Claim 10:

The claim 10 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of the user manipulating the second map. However, the Veatch reference teaches the user manipulation of the second map (the legal description map for the surveyed lot is manipulated and overlaid over a corresponding portion of the image base map; column 5, lines 1-23)

Claim 11:

The claim 11 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of receiving a display of a second region associated with a second map, the second region being geographically substantially similar to the first region. However, the Veatch reference teaches the claim limitation of receiving a display of a second region associated with a second map, the second region being geographically substantially similar to the first region (Figs. 2, 5 and 6).

Claim 12:

The claim 12 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of changing a view of the first map. However, the Veatch reference discloses the user interface software that has the ability to change a view of the first map (e.g., *the survey points for a specific lot can be entered by the operator so that the map view may be created for the specific lot; column 5, lines 1-23; see also Fig. 3 that includes generating digital image data using a digitizer unit for digitizing an aerial photograph of the geographic survey region*).

Claim 13:

The claim 13 encompasses the same scope of invention as that of claim 12 except additional claimed limitation of receiving a display in response to the user interaction. However, the Veatch reference teaches the claim limitation of receiving a display in response to the user interaction (Figs. 2, 6 and column 5, lines 1-23).

Claim 14:

The claim 14 encompasses the same scope of invention as that of claim 13 except additional claimed limitation of receiving a display of the second map, the display of the second map being representative of the responsive display of the first map. However, the Veatch reference implicitly teaches the claim limitation of receiving a display of the second map (Figs. 2, 6 and column 5, lines 1-23).

4. Claim 15:

The claim 15 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of a computer readable medium containing instructions executable by a computer to manipulate a map.

However, the Veatch reference teaches in figure 4 a computer readable medium executable by a computer to manipulate a map.

Claim 16:

The claim 16 encompasses the same scope of invention as that of claim 15 except additional claimed limitation of enabling viewer to view at least the first map. However, the Veatch reference teaches the claim limitation of enabling a user to view at least the first map (e.g., Figs. 5, 2 and 6).

Claim 17:

The claim 17 encompasses the same scope of invention as that of claim 15 except additional claimed limitation of receiving a command to change a map view; and receiving a responsive display of the first map, the responsive display being representative of the user interaction. However, the Veatch reference teaches the claim limitation of receiving a command to change a map view (e.g., the survey points for a specific lot can be entered by the operator so that the map view may be created for the specific lot; column 5, lines 1-23); and receiving a responsive display of the first map, the responsive display being representative of the user interaction (Fig. 2 and column 5, lines 1-23).

Claim 18:

The claim 18 encompasses the same scope of invention as that of claim 15 except additional claimed limitation of receiving of a display of a second region on the second map, the second region being geographically substantially similar to the first region. However, the Veatch reference teaches the claim limitation of receiving of a display of a second region on the second map, the second region being geographically substantially similar to the first region (Fig. 2 and column 5, lines 1-23).

5. Claim 19:

The claim encompasses the same scope of invention as that of claim 1 except additional claimed limitation of an apparatus for manipulating a map.

However, the Veatch reference teaches in figure 4 an apparatus with a computer memory such as the memory unit 115 and the digital imaging system 105 coupled with the GIS 110 capable of enabling map manipulation (column 4, lines 1-12).

Claim 20:

The claim 20 encompasses the same scope of invention as that of claims 19 and 16-18. The claim is rejected for the same reason as set forth in above.

Claim 21:

The claim 21 is subject to the same rationale of rejection set forth in the claim 7 since the first map and the second map are interchangeable. This is because the coordinates of the first map can be mapped to the coordinates on the second map and vice versa.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (571) 272-7665. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jcw

